REMARKS

The Office Action dated September 3, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

By this Response, claims 1, 4, 9, 12-13, 16-17, 23, 77, 97-99, 103, 105-111, and 113 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. Claims 2-3, 24-60, 78, 104, and 112 have been cancelled without prejudice or disclaimer, and claims 114-116 have been added. No new matter has been added. Accordingly, claims 1, 4-17, 19, 21-23, 77, 79-92, 96-100, 102-103, 105-111, and 113-116 are currently pending in the application, of which claims 1, 9, 12-13, 16, 97-99, and 106-110 are independent claims.

In view of the above amendments and the following remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending rejections to the claims for the reasons discussed below.

Claim Rejections under 35 U.S.C. §102(e)

The Office Action rejected claims 1-12, 19, 23-40, 77-87, 97-98, 102, and 106-107 under 35 U.S.C. §102(e) as being allegedly anticipated by Larsson, *et al.* (U.S. Patent No. 6,643,262) ("Larsson"). The Office alleged that Larsson discloses or suggests each and every element recited in claims 1-12, 19, 23-40, 77-87, 97-98, 102, and 106-107.

Application No.: 09/980,376

Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in Larsson.

Claim 1, upon which claims 4-8, 19, 21-23, 77, 79-83, 96-97, 102, and 114 depend, recites an apparatus in a cellular communications network. The apparatus includes a monitor configured to monitor at least one parameter related to a connection between a mobile station and a support node. The at least one parameter includes user activity. The apparatus further includes a determining unit configured to determine whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitor. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection when there is user inactivity for a predetermined period of time.

Claim 9, upon which claims 10-11, 84-86, and 115 depend, recites an apparatus in a cellular communications network. The apparatus includes a monitor configured to monitor at least one parameter related to a connection between a mobile station and a support node, and a determining unit configured to determine whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitor. The at least one parameter includes an elapsed time since the last use of the connection. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to

Application No.: 09/980,376

completely release the connection when the connection has not been used for a predetermined time.

Claim 12, upon which claims 87 and 116 depend, recites an apparatus in a cellular communications network. The apparatus includes a monitor configured to monitor at least one parameter related to a connection between a mobile station and a support node, and a determining unit configured to determine whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitor. The at least one parameter includes a state of the mobile station. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the state of the mobile station.

Claim 98, upon which claim 100 depends, recites an apparatus. The apparatus includes a processor configured to monitor at least one parameter of a connection established between a mobile station and a support node and to determine whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter. The apparatus is implemented in a cellular communication network. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the at least one parameter.

Claim 106 recites an apparatus in a cellular communications network. The apparatus includes monitoring means for monitoring at least one parameter related to a

Application No.: 09/980,376

connection between a mobile station and a support node, and determining means for determining whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitoring means. The at least one parameter includes an elapsed time since the last use of the connection. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection when the connection has not been used for a predetermined time.

Claim 107 recites an apparatus in a cellular communications network. The apparatus includes monitoring means for monitoring at least one parameter related to a connection between a mobile station and an support node, and determining means for determining whether the connection between the support node sand the mobile station is to be released based solely on the at least one parameter monitored by the monitoring means. The at least one parameter includes a state of the mobile station. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the state of the mobile station.

As will be discussed below, Larsson fails to disclose or suggest each and every element recited in claims 1, 4-12, 19, 23, 77, 79-87, 97-98, 102, and 106-107, and therefore fails to provide the features discussed above. Claims 2-3, 24-40, and 78 were cancelled without prejudice or disclaimer.

Application No.: 09/980,376

Larsson is directed to a system and method for dynamic sharing of connection resources. In particular, Larsson describes a system and method for the efficient utilization of core telecommunication resources, including both switching and transport resources, during a datacom session over a connection-oriented telecommunication system (Larsson, Abstract).

Applicants respectfully submit that Larsson fails to disclose or suggest each and every element recited in claims 1, 9, 12, 98, and 106-107. In particular, Larsson fails to disclose or suggest, at least, "wherein the apparatus is ... further configured to completely release the connection when there is user inactivity for a predetermined period of time," as recited in claim 1 (emphasis added), and similarly recited in claims 9, 12, 98, and 106-107.

The Office Action alleged that Larsson discloses the aforementioned claim features, citing column 11, lines 16-27, and column 15, lines 1-15. In particular, the Office Action alleged that the RSS (remote subscriber switch) node anticipates the features of the "apparatus," the free set anticipates the features of the "mobile station," and the exchange anticipates the features of the "support node" disclosed in certain embodiments of the present invention. The Advisory Action further alleged that Larsson discloses releasing the connection, citing col. 11, lines 23-27.

However, a review of these passages in relation to the features of the RSS, the free set, and the exchange described in Larsson demonstrates that the teachings of Larsson

- 23 - Application No.: 09/980,376

fails to disclose or suggest each and every element recited in claims 1, 9, 12, 98, and 106-107.

Rather, Larsson, as previously noted above, describes a system for the efficient utilization of core telecommunications and resources. As described in column 15, lines 1-5, Larsson teaches that one or both of the adapters (the RSS node prior to the exchange node), are designed to notify the exchange whenever a session is found to be inactive according to pre-calculated or specifically programmed criteria. The notification of inactivity is performed by sending a pause signal.

Larsson further describes that the dynamic connection session enters a dormant or paused phase. The transition to the paused state causes the dynamic connection to be partitioned into at least two disjointed segments with the segment linking the two disjointed segments representing critical core telecommunication resources. The *linking* segment resources are released or reused by other users.

As further described in column 11, lines 16-27, Larsson teaches that when a period of inactivity is detected, the system causes a session and a telephone call to be made dormant *without* bringing the connection to an end. Hence, the *connection* from the mobile station to the exchange *is not completely released.* Rather, only a partial release of the connection from the remote subscriber stage to the exchange is carried out.

Accordingly, Larsson fails to disclose or suggest "wherein the apparatus is ... further configured to <u>completely release the connection</u> when there is user inactivity for a

predetermined period of time," as recited in claim 1 (emphasis added), and similarly recited in claims 9, 12, 98, and 106-107.

Rather, Larsson merely describes that a determination is made whether the connection between the support node and the apparatus is to be released, while *maintaining* the connection between the apparatus and the mobile station. Thus, Larsson *maintains* the connection between the mobile station and the apparatus to allow a shift restoration of connection between end parties. One of ordinary skill in the art would understand that this approach may be problematic for cellular communications because it may use up valuable radio network links that may be more optimally used for different mobile stations.

Accordingly, Larsson teaches away from the disconnection of the connection between the mobile station and the support node. As is described in column 11, lines 21-23, Larsson discloses that "the present invention permits the session as well as the telephone call to be made dormant *without brining the connection to an end.*"

Furthermore, Applicants respectfully submit that the Office Action failed to address each and every element recited in the "wherein" clauses of the pending claims. The Office Action alleged that "wherein clauses do not require the steps to be performed," citing MPEP §2106(II)(C). Applicants respectfully submit that MPEP §2106(II)(C) further notes that the presence of a "wherein" term <u>may</u> give rise to a question of whether the limitation is really limiting. In fact, each of the "wherein" clauses recited in the pending claims clearly limits the structural features of the apparatus

Application No.: 09/980,376

and the cellular communications network recited in the pending claims. For example, "the apparatus is configured to provide a connection between the mobile station and the support node," as recited in claim 1. Therefore, each and every element recited in the "wherein" clauses of the pending claims should be given patentable weight and considered in the examination of the present invention.

Accordingly, Larsson fails to disclose or suggest each and every element recited in claims 1, 9, 12, 98, and 106-107.

Claims 4-8, 19, 23, 77, 79-83, 97, and 102 depend from claim 1. Claims 10-11 and 84-86 depend from claim 9. Claim 87 depends from claim 12. Accordingly, claims 4-8, 19, 23, 77, 79-87, and 102 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein. Claims 2-3, 24-40, and 78 have been cancelled without prejudice or disclaimer.

Therefore, Applicants respectfully request withdrawal of the rejections of claims 1-12, 19, 23-40, 77-87, 97-98, 102, and 106-107 under 35 U.S.C. §103(a) and respectfully submit that claims 1, 9, 12, 98, and 106-107, and the claims that depend therefrom, are now in condition for allowance.

Claim Rejections under 35 U.S.C. §103(a)

The Office Action rejected claims 13-17, 21-22, 41-60, 88-92, 96, 99-100, 103-105, and 108-113 under 35 U.S.C. §103(a) as being allegedly unpatentable over Larsson in view of Stephenson, *et al.* (U.S. Patent No. 6,119,000) ("Stephenson"). Applicants

Application No.: 09/980,376

respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of Larsson and Stephenson.

Claim 13, upon which claims 14-15 and 88-90 depend, recites an apparatus in a cellular communications network. The apparatus includes a monitor configured to monitor at least one parameter related to a connection between a mobile station and a support node, and a determining unit configured to determine whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitor. The at least one parameter includes a movement of the mobile station. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the movement of the mobile station.

Claim 16, upon which claims 17 and 91-92 depends, recites an apparatus in a cellular communications network. The apparatus includes a monitor configured to monitor at least one parameter related to a connection between a mobile station and a support node, and a determining unit configured to determine whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitor. The at least one parameter includes a location of the mobile station. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the location of the mobile station.

Application No.: 09/980,376

Claim 99, upon which claims 103 and 105 depend, recites a method. The method includes establishing a connection between a mobile station and a support node in a cellular communications network through a radio network controller, monitoring, at the radio network controller, at least one parameter related to the connection between the mobile station and the support node. The method also includes determining, at the radio network controller, whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter, and releasing completely, by the radio network controller, the connection between the support node and the mobile station based on the at least one parameter.

Claim 108 recites an apparatus in a cellular communications network. The apparatus includes monitoring means for monitoring at least one parameter related to a connection between a mobile station and an support node, and determining means for determining whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitoring means. The at least one parameter includes a movement of the mobile station. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the movement of the mobile station.

Claim 109 recites an apparatus in a cellular communications network. The apparatus includes monitoring means for monitoring at least one parameter related to a connection between a mobile station and an support node, and determining means for

Application No.: 09/980,376

determining whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter monitored by the monitoring means. The at least one parameter includes a location of the mobile station. The apparatus is configured to provide the connection between the mobile station and the support node, and further configured to completely release the connection based on the location of the mobile station.

Claim 110, upon which claims 111 and 113 depend, recites a computer readable storage medium encoded with instructions that, if executed by a computer, performs a process. The process includes establishing a connection between a mobile station and an support node in a communication network through a radio network controller, and monitoring, at the radio network controller, at least one parameter related to the connection between the mobile station and the support node. The process further includes determining, at the radio network controller, whether the connection between the support node and the mobile station is to be released based solely on the at least one parameter, and releasing completely, by the radio network controller, the connection between the support node and the mobile station based on the at least one parameter.

As will be discussed below, the combination of Larsson and Stephenson would fail to disclose or suggest every feature recited in claims 13-17, 21-22, 88-92, 96, 99-100, 103, 105, 108-111, and 113, and therefore fails to provide the features discussed above. Claims 41-60, 104, and 112 have been cancelled without prejudice or disclaimer.

Application No.: 09/980,376

Larsson was discussed above. Stephenson is directed to a method and apparatus for tracking identity-code changes in a communication system (Stephenson, Abstract).

As previously noted above, Larsson fails to disclose or suggest each and every element recited in claims 1, 9, 12, and 98. Stephenson fails to cure the deficiencies of Larsson. In particular, Stephenson fails to disclose or suggest, at least, "wherein the apparatus is ... further configured to completely release the connection when there is user inactivity for a predetermined period of time," as recited in claim 1 (emphasis added), and similarly recited in claims 9, 12, and 98.

Accordingly, assuming *arguendo* that the teachings of Larsson could be combined with the teachings of Stephenson, the combination of Larsson and Stephenson would fail to disclose or suggest each and every element recited in claims 1, 9, 12, and 98.

Claims 13, 16, 98, and 108-110 each have their own claim scope, but additionally contain recitations similar to those discussed above for claim 1. Accordingly, the combination of Larsson and Stephenson would also fail to disclose or suggest each and every element recited in claims 13, 16, 99, and 108-110. Claims 41-60, 104, and 112 have been cancelled without prejudice or disclaimer.

Claims 21-22 and 96 depend from claim 1. Claim 87 depends from claim 12. Claims 14-15 and 88-90 depend from claim 13. Claims 17 and 91-92 depend from claim 16. Claim 100 depends from claim 98. Claims 103 and 105 depend from claim 99. Claims 111 and 113 depend from claim 110. Accordingly, claims 14-15, 17, 21-22, 87-

Application No.: 09/980,376

92, 96, 100, 103, 105, 111, and 113 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully request withdrawal of the rejections of claims 13-17, 21-22, 41-60, 88-92, 96, 99-100, 103-105, and 108-113 under 35 U.S.C. §103(a) and respectfully submit that claims 13, 16, 99, and 108-110, and the claims that depend therefrom, are now in condition for allowance.

CONCLUSION

In conclusion, Applicants respectfully submit that Larsson and Stephenson, whether taken individually or in combination, fail to disclose or suggest each and every element recited in claims 1, 4-17, 19, 21-23, 77, 79-92, 96-100, 102-103, 105-111, and 113-116. The distinctions previously noted are more than sufficient to render the claimed invention unanticipated and non-obvious. It is therefore respectfully requested that all of claims 1, 4-17, 19, 21-23, 77, 79-92, 96-100, 102-103, 105-111, and 113-116 be allowed, and this present application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Application No.: 09/980,376

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: RCE Transmittal
              Petition for Extension of Time
              Additional Claim Fee Transmittal
              Check No. 000020151

Application No.: 09/980,376